

view of the longitudinal grooves, and the second wherein the longitudinal ribs do not fully meet and are separated by the longitudinal grooves proximate their distal end. Page 8 has been amended to properly refer to portions of Figure 10 and to properly identify the press die and faces by number. Finally, page 9 has been amended to remove extraneous language left after a previous amendment to this page. No new matter has been added by these amendments.

The claims have been amended to address the concerns identified in the Office Action relating to 35 USC §112. These amendments are fully supported in the original disclosure. The description of the "generally cylindrical absorbent portion" in Claim 1 is supported in Figure 4 and at page 4, lines 24-27. This language relates to the fact that the absorbent portion is more cylindrical than other geometric shapes such as pyramidal, cubic, etc. The description of the compressed fibre core as "generally cylindrical" is equivalent language to "approximately circular" which is original claim language. The added language spanning lines 3-7 of amended Claim 1 ("from which...fibre core,") is found in original Claim 1 at lines 13-17. The language relating to the ribs being separated from adjacent ribs at the proximal end by longitudinal grooves is supported in Figures 2, 3 and 4. The language "having a circumferential surface obtained" is supported in original Claim 6. The language "at an even number of...extending portions about" is supported in original Claim 1 at the lines 6-7 and 10-11. The language "are compressed radially inward at a second pressure" replaces the equivalent language in brackets it follows. The amendments to Claim 2 are fully supported in original Claims 1 and 2 and are intended to provide proper antecedent basis for terms in the claim. In addition, modifying terms for the numerical values have been removed from this claim and from Claims 3 and 4 as requested in the Office Action.

The amendments to Claim 6 merely replace awkward language with more precise language. The term "spaced apart" is evident in the drawing, Figures 2, 3 and 4.

The amendments to Claim 9 are fully supported in the application as originally filed. These amendments are discussed in

greater detail relating to Claim 1 above. Amendments unique to Claim 9 include replacing "six" with "three" in line 3 of the claim. This is in response to that portion of the Office Action which correctly points out that each group of press dies comprises at least 3 press dies. Additionally, relationships such as "toward the longitudinal press axis", "having a distal end", "longitudinal press axis" are inherent in the structure and claim elements. The language "the distal ends of the press cutters...in forming the tampon preform" are supported in original Figure 9 and at page 8, lines 25-31. The discussion of the ribs and groove in the tampon preform were prompted by the comments in the Office Action and are supported in original Figures 7 and 9. The relationships of the entry and exit orifices of the forming die to the press can be found in Figure 10 and at page 9, lines 4-10, and page 10, lines 8-14 and 20-24. The amendments to Claims 15, 17 and 19 are merely to provide antecedent basis for terms in the claims and to correctly reflect terms previously identified in the claims from which they depend. The amendments spanning line 3-5 of Claim 20 can be found in Claim 1 above. The amendments spanning lines 7 and 8 of Claim 20 are provided to form proper antecedent basis for terms appearing later in the claim. Amendments spanning the last five lines of the claim are supported in Claim 1 as discussed and described above.

New Claim 23 is supported in Claim 1 as originally filed and as currently amended.

The present invention relates to a novel tampon and to a process and apparatus for producing such a tampon. The tampon has (1) a highly compressed central core to provide structural stability and rapid fluid wicking properties and (2) a soft outer surface with a coarser capillary structure than the inner core. This structure provides a soft feel and high absorbent capacities.

The outstanding Office Action objects to the Amendment filed February 1, 1993 under 35 USC §132 as introducing new matter into the specification. The particular matter is identified as page 1, line 36; page 5, lines 8-9; page 3, lines 20-21; and page 7, line 26. Applicants respectfully request reconsideration of this objection.

The material amended at pages 1 and 5 relates to the tampon structure. An earlier Office Action had identified these sections as being confusing relating to the term "without the recovery tape". This language was removed and the tampon was described as "comprising an absorbent portion". This language is merely intended to relate that the weights and dimensions disclosed in the specification relate only to the absorbent portion of the tampon prepared from the cylindrical tampon blank. The weights and dimensions disclosed in the application do not include extraneous matter such as the recovery tape (the withdrawal string) attached to the absorbent portion for removal of the tampon after use. Applicants were not attempting to reflect different embodiments with these amendments. Therefore, Applicants respectfully submit that there is no new matter with these amendments to the specification at pages 1 and 5.

The amendments to pages 3 and 7 do relate to alternative embodiments. Figure 2 reflects one embodiment of the present invention in which the longitudinal ribs do not meet to obscure the view of the longitudinal grooves in the finished tampon. Figure 4 shows a second embodiment in which the neighboring longitudinal ribs contact each other to obscure the longitudinal groove. The specification has been further amended at page 4 to clarify these relationships of the two embodiments. Applicants respectfully submit that the earlier amendment to pages 3 and 7 and the present amendment to page 4 are fully supported in original Figures 2 and 4 and do not introduce new matter. Therefore, Applicants respectfully request that the objection under 35 USC §132 be withdrawn.

The Office Action also objects to the specification and Claims 2-4 under 35 USC §112, first paragraph. Applicants respectfully request that this objection and rejection be reconsidered.

The Office Action identified page 1, lines 4-7 as being in improper form. These lines have been amended, and Applicants submit that the present language is clear and adequately describes the invention and supports the same.

Claims 2-4 are identified as not being supported by the original specification. These claims have been amended to reflect the language of the originally filed specification. In particular, language modifying the measured values in these claims has been eliminated.

At page 4, line 22, "have been" has been replaced with "are". Applicants submit that it is the proper verb tense.

The Office Action identifies page 8, line 36, and indicates that "7" should be --10--. Applicants assume that this reference is to page 8, line 30. This has been amended.

Finally, the Office Action indicated that the disclosure should be commensurate in scope with Claim 6, lines 13-16. A review of this claim as amended suggests that the language at issue relates to the compressed fibre core of the preform being approximately circular. A review of the specification illustrates that this feature is discussed at page 9, line 20 through page 10, line 5, especially page 10, lines 1-5.

For the reasons outlined above, Applicants respectfully submit that the specification and Claims 2-4 comply with the requirements of 35 USC §112, first paragraph. Therefore, withdrawal of this rejection and objection is hereby respectfully requested.

Claims 1-12 and 14-22 stand rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Office Action indicates that the claims are "replete with improper claim syntax". As indicated above, the claims have been extensively rewritten to address the identified concerns, and Applicants believe that the claims in their present condition comply with the requirements of 35 USC §112, second paragraph.

In particular, the Office Action identifies in Claim 1, line 9 "the resulting tampon", line 15 "the softer fibre structure", and line 24 "a soft structure". The Office Action suggests rewriting Claim 1 to first set forth the structure of the tampon and then set forth the process used to reach that structure. Applicants have extensively rewritten Claim 1 to follow the suggested claim format and to clarify the relationship of the various claim elements.

The Office Action points out that Claim 2 and Claim 1 describe the nonwoven material used to form the tampon in different terms. Claim 2 has been amended to refer back to the language of Claim 1 and to further clarify the nonwoven material.

The Office Action points to Claim 6, line 8, and suggests replacing the word "in" with "other". This term has been removed and more accurate descriptive language has been substituted.

The Office Action points out that Claim 9, lines 3 and 4 are inaccurate in describing two groupings of six press dies each. In actuality, there are two groupings of at least three press dies each. The claim has been amended to reflect this reality. In the same claim, lines 13-16 have been amended to reflect that the then faces of the press dies merely define a maximum diameter of the tampon preform. Lines 20 and 21 of Claim 9 have also been corrected to reflect that the press cutters form longitudinal grooves in the tampon preform and that the longitudinal ribs remain as a result of not being pressed by the press cutters. The claim has also been amended to provide structural antecedent basis for various terms as described above.

The Office Action appears to reflect an unintended interpretation of Claim 10, lines 2-3. The intent of this claim was not to claim inferentially curved press die end faces. This claim merely refers to the distal end of the press cutters and relates: (1) they project radially inward from the press die toward the longitudinal press axis, (2) they come to rest in forming the tampon preform at an equal radial distance from the longitudinal press axis, and (3) they are equally spaced about the longitudinal press axis at an equal angular amount measured from the longitudinal press axis.

Claims 17 and 19 have been amended to provide positive structural antecedent basis for the term "the diameter" and to reflect earlier antecedent basis in Claim 19.

Claim 20 has been amended to provide positive structural antecedent basis for the formation of the rigid compressed central core. In addition, the remaining claims have been reviewed and revised as necessary to correct the informalities generally identified in the Office Action.

Based upon these revisions to the claims, Applicants believe that the claims fully comply with the requirements in 35 USC §112, second paragraph. Therefore, withdrawal of this rejection is hereby respectfully requested.

Claim 20 stands rejected under 35 USC §102(b) or §103 in view of Rabell, U.S. Patent No. 2,425,004. Applicants respectfully request reconsideration of this rejection.

The Rabell reference relates to forming a tampon from a sheet of absorbent material which may be in the form of a circular disc, a square, etc. The material is first pursed into a cup-like shape having a plurality of undulations around the periphery as a result of the gathering of flat material into the pursed condition. This configuration is then radially compressed in an apparatus. The resulting tampon is "radially compressed and semi-shape retaining". The figures in this reference also reflect that the central core remains somewhat hollow (see Figs. 3 and 12). Further, the tampon is prepared from a sheet material which is formed into a somewhat conical shape.

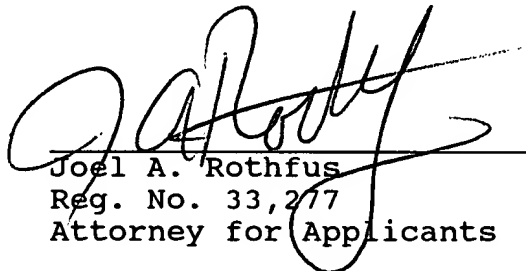
In marked contrast, the present invention has a highly compressed central core; it is not hollow. For this reason alone, Rabell cannot anticipate nor render obvious Claim 20 or any of the other pending claims. In addition, Claim 20 requires that the core be formed from a cylindrical blank prepared by a winding up a length of tape shaped nonwoven material. This is neither taught nor disclosed in the Rabell reference which employs a more conical or frusto-conical blank. Therefore, the Rabell reference can neither anticipate nor render obvious Claim 20.

Rabell also does not render obvious newly added Claim 23. This claim requires that the central core be generally cylindrical and compressed. Longitudinal ribs extend radially outward from this core. In marked contrast, the Rabell reference discloses a hollow central core and hollow ribs extending outward (see Fig. 4) which core and ribs are covered over by the sheet-like material. Such teaching certainly does not anticipate or render obvious Claim 23 requiring a generally cylindrical compressed fibre core. For this reason, Applicants respectfully submit that the newly submitted Claim 23 is patentable over the Rabell reference.

CONCLUSIONS

The present application was filed with 19 claims. Subsequent to filing, Claims 20-22 have been added and Claim 13 has been cancelled. By this paper, new Claim 23 is added. Therefore, Claims 1-12 and 14-23 are pending in this case. These claims have been variously rejected under 35 USC §102(b), §103 and §112. In addition, the specification has been objected to under 35 USC §112 and §132. For the reasons outlined above, Applicants respectfully request reconsideration of these rejections and objections. Applicants look forward to an early notice of allowance for these claims.

Respectfully submitted,


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